EDUCATIONAL & TRAINING ACTIVITIES
ANALYTICAL REPORT

eCAN
Strengthening eHealth for
Cancer Prevention & Care

DELIVERABLE 8.3

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Outline

List of Tables

List of Figures

Glossary of Acronyms

eCAN   Strengthening eHealth Including Telemedicine and Remote Monitoring in Health and Care Systems for Cancer Prevention and Care

EU   European Union

HCP   Healthcare professional

JA   Joint Action

PI   Principal Investigator

WP   Work Package

Purpose of the deliverable

This deliverable contains the activities of Task 8.3 and Task 8.4, as described in the Grant Agreement of the eCAN Joint Action. More specifically, it presents all the educational activities that were conducted during the first year of the eCAN project.

Tasks 8.3 and 8.4 describe the identification, development, and piloting of a series of educational materials aimed at healthcare professionals (HCPs), caregivers (official and unofficial) and patients. The materials target the use of teleconsultation and telemonitoring technologies and address the lack of digital literacy in these population groups.

Additional target areas include coping strategies, shared decision making, patients' rights, communication training, assessing psychosocial needs, having difficult discussions etc. This deliverable is a live document, consisting of two separate versions. Version A includes all materials and activities that concern training of eCAN pilot sites' staff towards the technologies developed for the purposes of the pilots of the project. Version B will contain all additional materials and activities for relevant stakeholders.

1. Introduction

1.1. The eCAN Joint Action

The epidemic situation of Covid-19, combined with the inequalities in access to healthcare, has brought the need for telehealth/telemedicine in the spotlight. The Joint Action 'Strengthening eHealth including telemedicine and remote monitoring for health care systems for CANcer prevention and care' (eCAN JA) aims to bring the benefits of eHealth to all citizens and patients across EU-Member States (MS) focusing on cancer prevention and care.

By bringing together a multidisciplinary team of professionals in the fields of medicine, policymaking, medical informatics, and stakeholders' engaging, eCAN explores the efficacy of telehealth/telemedicine in different cancer populations in 10 European countries. At the same time, the JA moves towards equipping Healthcare Professionals (HCPs), caregivers (formal and informal) and patients with all the necessary information and tools to increase their preparedness towards the deployment and use of telehealth/telemedicine solutions.

eCAN JA is divided into eight Work Packages (WPs). WP1 is the project management and coordination WP, responsible for the oversight of the eCAN JA. WP2 is Dissemination and Communication, WP3 is the Evaluation WP, while WP4 is concerned with the sustainability of the JA. WP5, named teleconsultation, includes all the pilot activities of the project, WP6 is concerned with the legal and ethical framework of the work. WP7, the telemonitoring WP, is responsible for the development of the technologies used during the lifecycle of the project. Finally, WP8 deals with stakeholder engagement, education and training. This deliverable contains the activities undertaken in certain tasks of WP8.

1.2. WP8 description & Links to other Work Packages and Tasks

WP8 covers the entire eCAN lifecycle and its main objectives are:

- To improve the knowledge of cancer care workforce in the virtual consultation of patients and survivors
- To improve preparedness to respond to emergency and crisis situations
- To increase communication between different stakeholders to support knowledge-sharing
- To allow for efficient coordination amongst policy makers (health authorities), general practitioners, hospitals and patients
- To improve eHealth competencies to teleconsultation, telemonitoring services for providers, care givers, patients

- To support training needs of pilot participants prior to their enrolment in the study

WP8 consists of four separate tasks. Tasks 8.1 and 8.2 target the establishment of the project's stakeholders' network and the relevant participatory activities they are involved in. Tasks 8.3 and 8.4 organize the creation of training materials and the implementation of the training activities for their validation and use.

Task 8.3 describes the methodology that is followed in the eCAN JA to identify training gaps and needs and produce learning materials addressed to HCPs, patients and caregivers regarding the use of telehealth/telemedicine technologies. More specifically, the objectives of the task are as follows:

- To conduct training needs assessment for patients, caregivers and clinical experts
- To develop a guide of educational activities and training material for patients and caregivers
- To develop a framework of educational activities and training material for clinical experts
- To create educational material regarding telehealth technologies

The outputs of Task 8.3 will be provided to WP5 in the form of educational materials (videos and user manuals), assisting HCPs during the facilitation of the pilots. Furthermore, Task 8.3 will assist WP5 during the enrolment period, providing information leaflets to prospective participants, in collaboration with WP2. Finally, a patient booklet will be provided to WP5 for distribution among the participants of the pilots.

Task 8.4 describes the education and training of the medical staff and the patients and the alignment of this training with already existing practices. Furthermore, this task revolves around the facilitation of the training activities and the availability of the training materials through an online e-learning platform. The main objectives of task 8.4 are:

- To develop a digital training suite
- To carry out actual training activities
- To evaluate training methodology and activities

Task 8.4 will provide their outputs to WP5 and WP7. To WP5, Task 8.4 will provide training on all the employed technologies to HCPs taking part in the pilots. To WP7 Task 8.4 will provide its outputs in the form of comments and requirements, after demonstrating developed tools to the rest of the eCAN consortium during the train-the-trainers workshops.

1.3. Document structure

The current deliverable has been structured as follows:

- Section 1 provides a comprehensive overview of the presented work context, including the relevant tasks and their main objectives.

- Section 2 presents the methodology followed during the first year of the project for the development of the learning materials and the organization and execution of the training activities.

- Section 3 contains the results of the training activities along with screenshots from the developed materials. In addition, the online availability of the materials is discussed and described.

- Section 4 includes information on the future activities of Tasks 8.3 and 8.4 and a brief presentation of the methodology that will be followed for the development of learning materials addressed to HCPs, patients and caregivers outside the eCAN consortium.

2. Methodology

Both task 8.3 and 8.4 refer to a wide range of materials that address general needs in terms of health literacy, coping strategies, shared decision making, patients' rights, information on the disease and its impact, communication training, assessing psychosocial needs, having difficult discussions etc. In order to identify the areas of existing lack of knowledge and/or misinformation, a preliminary gap analysis needs to be conducted in the form of a literature review.

Apart from that, a need for the training of the eCAN partners in the technologies that will be used for the purposes of the pilot activities of the project became apparent. A number of applications (either mobile or web) were implemented or employed by the project and therefore user guidance is considered as an essential preparatory step towards the successful implementation of the pilots taking place at WP5.

The following tools were developed within WP7:

- A mobile phone application, to be distributed among the patients assigned to the intervention group. The application includes a number of validated questionnaires and scales, along with others specifically designed for the purposes of the project.
- They all need to be filled out by the intervention group patients in a timely manner, to provide useful information on the patients' pain and/or distress levels and quality of

life, and to assist in the evaluation of the project in terms of cost-effectiveness. Apart from the mobile application, the patients are given the opportunity to utilise a smartwatch (Garmin).

- A web-based dashboard addressed to the HCPs within the eCAN consortium, which allows the monitoring of the patient's progression, keeping notes during tele-consultation sessions and assisting in the data collection for the final evaluation of the project.

- An instance of the online dashboard specifically designed for the control group, to provide them with access to the questionnaires they need to fill for the evaluation of the study.

Apart from the applications developed for the needs of the project, in order to complete the pilot activities, additional already existing platforms have been identified and configured according to the specifications provided. These include:

- Edumeet , an online, web-based [videoconferencing platform](#), which will be used by the HCPs of the eCAN consortium to organize and carry out the teleconsultation sessions.

- RedCap, an [online tool](#) used for randomization purposes.

The use of many different platforms, applications and other technologies, underlined the need for the creation of educational materials tailored as simplified user guides, accompanied by the organization of training activities devoted to familiarize the Principal Investigators (PIs) and other HCPs from the pilot partners with them.

As a result, for the first year of the eCAN project, a number of guides, booklets and videos were produced containing information on the mobile app, the web-based platform, Edumeet and RedCap. Additionally, three "Train the Trainers" workshops were organized, presenting the tools and their use to the consortium and giving the opportunity for hands-on.

3. Results

3.1 Training activities

The target of the training activities was to get the HCPs members of the eCAN consortium, participating in the pilot activities of the project, accustomed to the use of the digital tools employed during the pilots. In order to achieve that, three identical in format, hands-on train-the-trainers workshops were organized in June.

Prior to the launch date of the first workshop of the series, test user accounts have been created and their credentials were provided, thus allowing the participants to be actively involved in the procedure. Twenty (20) test user accounts were provided for the mobile app and twenty (20) for the dashboard.

Upon the start of each workshop, test user accounts for the mobile app and for the dashboard were distributed to the participants. Furthermore, QR codes redirecting to the download of the .apk file for the mobile application and the web link of the dashboard were generated and made available. Sufficient time was given to the participants to download and install the app and to enter the dashboard.

First, the mobile app was introduced step-by-step, allowing time for the participants to follow along as the workshops progressed. At all times, the organizer of the workshops shared their screen to give the opportunity to the participants to observe the steps taken while performing the same actions themselves.

The same methodology was followed during the presentation of the dashboard. Finally, a video introducing RedCap and the whole randomization process was presented. The utilization of Edumeet was not completed by the time that the workshops took place, and as a result, it was not presented. After careful consideration and to make sure that HCPs familiarized themselves with Edumeet as well, it was decided for Edumeet to be presented once available during the onboarding meetings conducted by WP5. Sufficient time at the end of each workshop was allocated for questions and for discussion to facilitate further improvement of the tools.

Among the most common questions/comments were the following:

- Whether the mobile app would become available for both Android and iOS mobile platforms
- How and when according to the research protocol would these technologies be used during the pilots
- Whether they had to use different credentials across platforms
- Whether they could access Edumeet through the dashboard for ease of access

Apart from the PIs and HCPs actively participating in the pilots, representatives of WPs who were involved in the development of the mobile application and dashboard were also invited.

The logistics of all three workshops are summarized in the following table:

a/a	Workshop	Duration (minutes)	Participants
1	16/06/23	125	24
2	22/06/23	95	22
3	26/06/23	84	32

Table 1: duration, day of realization and number of participants of the train-the-trainers workshops

3.2 Training materials

From the very beginning, the importance of having clear, user-friendly materials addressing all user needs for the technologies employed in the pilots was well recognized. This resulted in the creation of detailed, comprehensive materials, in close collaboration with WP5 and WP7 and under the supervision of WP1.

For the purposes of eCAN JA, a variety of different formats of training materials has been selected. Firstly, manuals and textbooks are used for all information concerning the technologies to be used in the pilot activities of the project. They can contain a combination of written texts and images, rendering their use for introduction of new technology fairly easy.

Mock ups taken as direct screenshots from the presented applications, combined with explanatory text, serve as an easy reference guide and manual for potential users. Furthermore, the use of video materials, as walkthrough videos has been selected to be made available to the end-users of the developed and employed technologies.

3.2.1. User-guides

A user guide, in the form of texts combined with screens of the tools were created. In total three tutorials have been delivered, one for the mobile application, one for the dashboard and one for the Edumeet platform. The tutorials of the mobile application and the dashboard are included in the same file, as the user manual of developed technologies, produced with the contribution of WP7. RedCap was excluded, due to its limited use and the fact that it will be operated by only one person per pilot site, during the onboarding of a patient. All these materials are available in the English language and directed
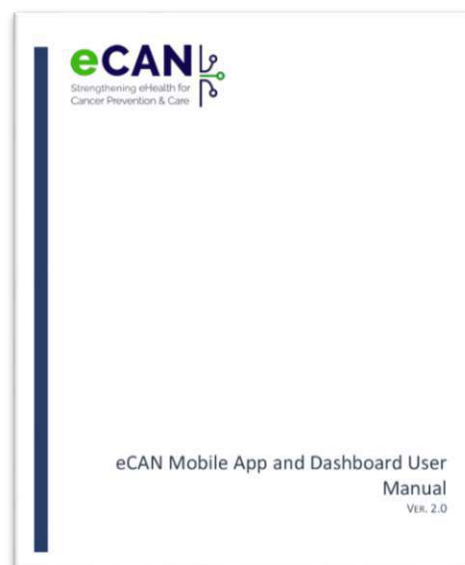

Figure 1: Cover of the user manual of the mobile application and the dashboard

exclusively to HCPs, members of the eCAN consortium, actively participating in the pilots. Although the mobile application itself is directed to patients, the pilot centre will perform the installation process, so it was deemed necessary that all HCPs receive the material as well.
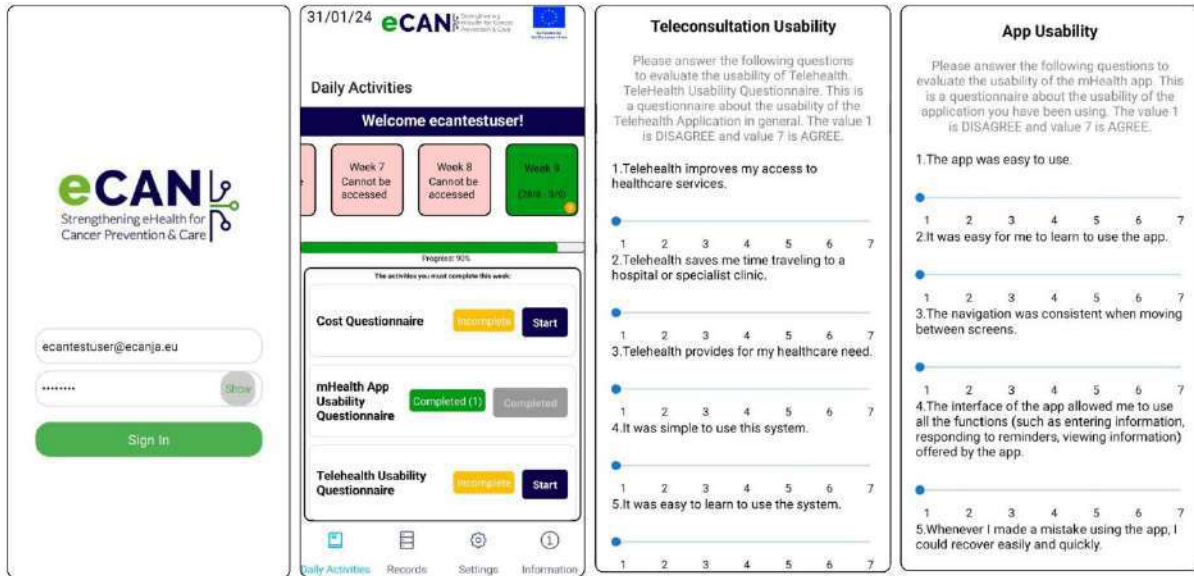

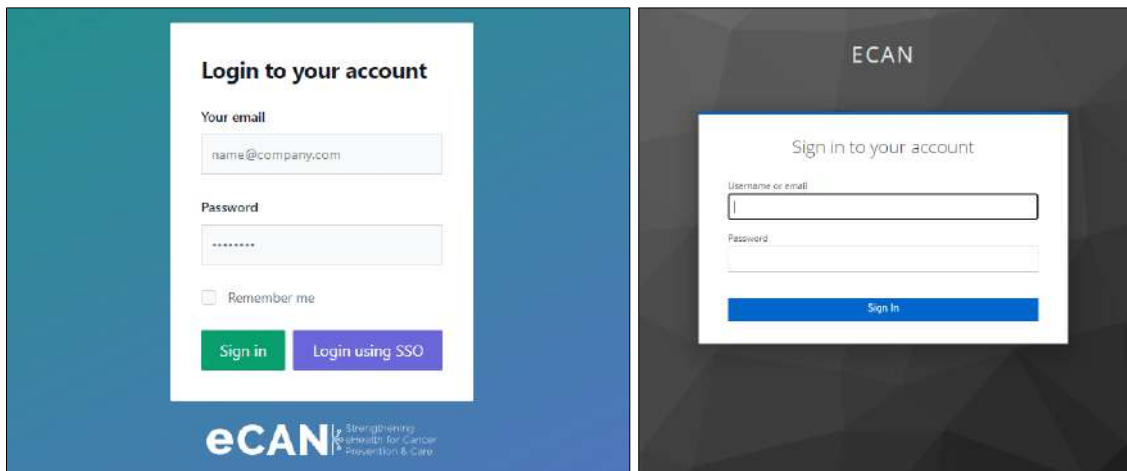*Figure 2: Mock ups of the mobile app included in the user manual*

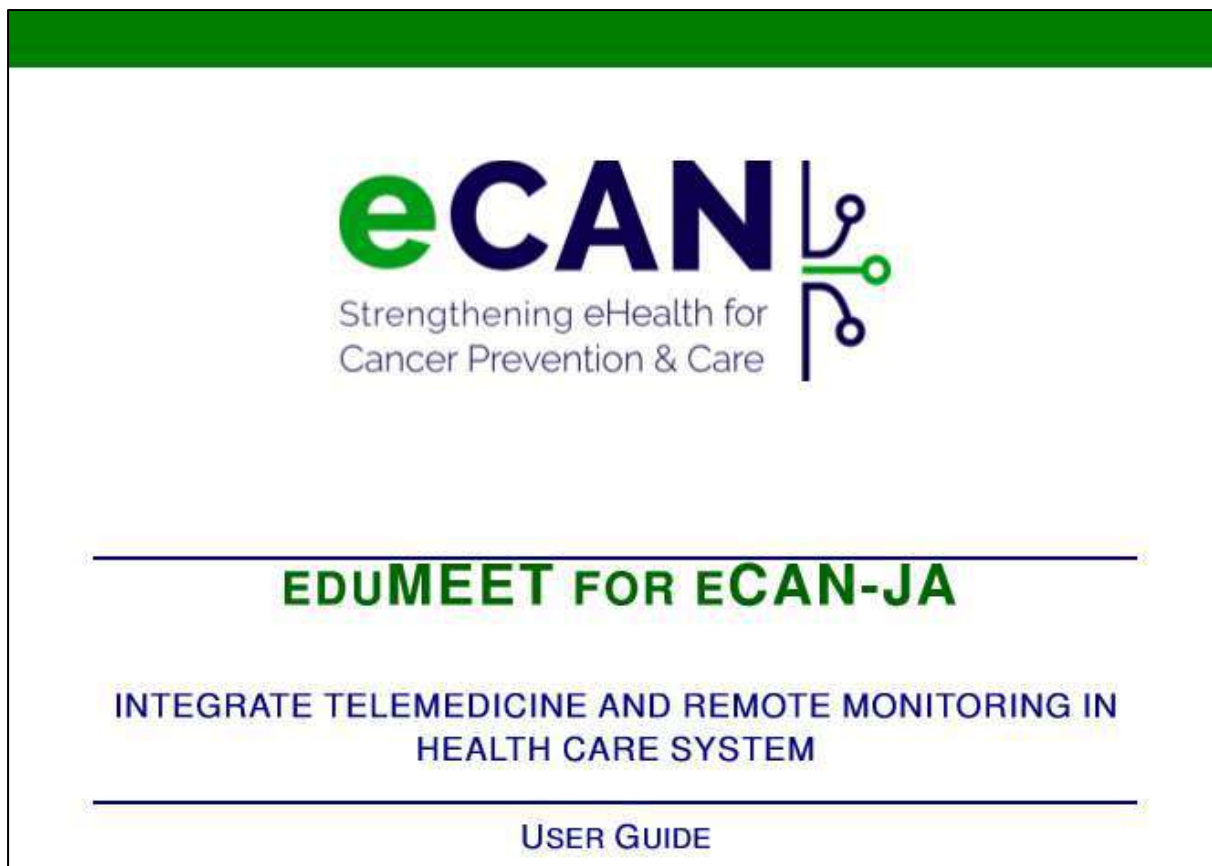*Figure 3: Mock ups of the dashboard included in the user manual*

Figure 4: eduMEET user manual, provided by WP5

3.2.2. Videos

Walkthrough videos are created after the completion of the development of the tools. The videos contain all the information regarding the use of the tools. Instructions on login, navigation within, functionalities and capabilities are detailed step-by-step.

The walkthrough video created for Edumeet served as a presentation during the onboarding meetings held by WP5. All videos are brief and present one by one the steps that a user should take to effectively launch and navigate through the technologies. There are four videos recorded and each includes the instructions for the employed tools (mobile application, Edumeet, dashboard, RedCap). The RedCap video was provided by WP5.
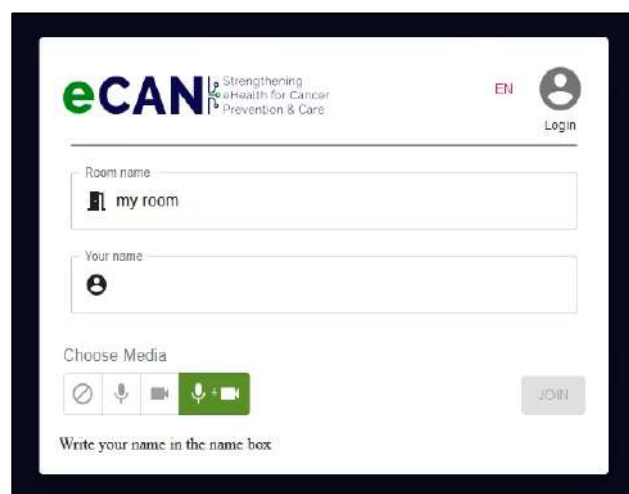

Figure 5: screenshot from the Edumeet walkthrough video

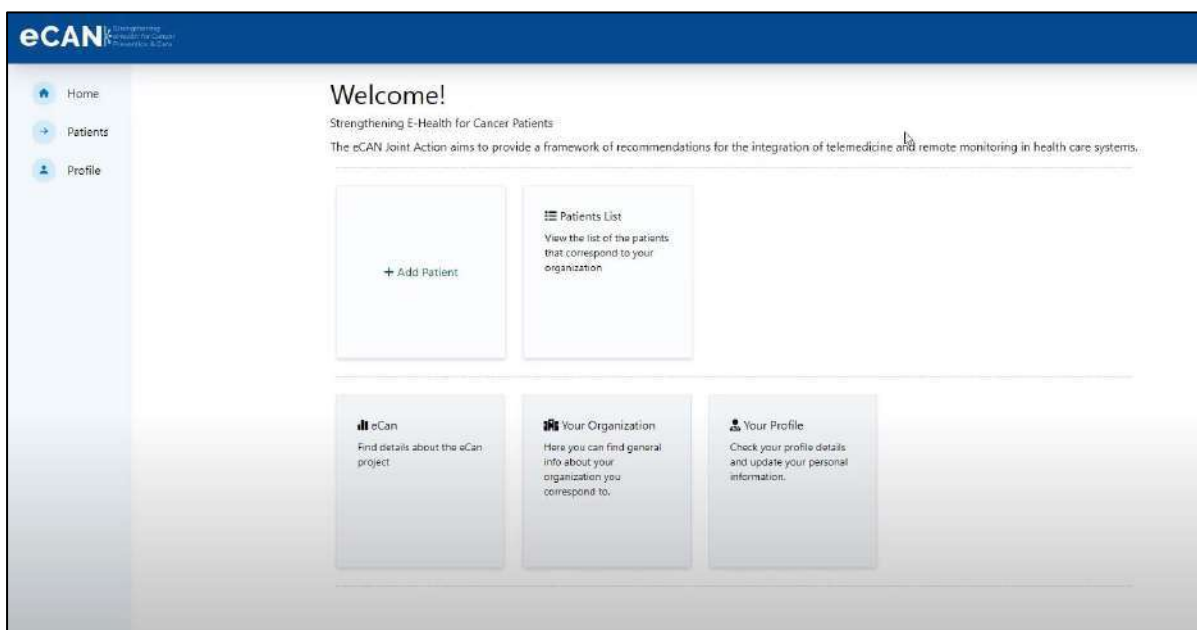*Figure 6: screenshot from the RedCap walkthrough video*

Figure 7: screenshot from the dashboard walkthrough video

3.2.3. Patient materials

Apart from the training materials addressed to eCAN pilot partners, the creation of informational material for the recruitment and assistance of patients was recognized as an important requirement for the smooth carry-out of the pilot activities. As a result, a booklet containing all the information that a patient needs to know during their participation in the pilots and a leaflet for the recruitment process were created. They are both translated in all languages of the pilot centres, and made available in a printed format by WP2.

Figure 8: cover of leaflets and booklets for patients

3.2.4. Availability of training materials

All training guides acting as supporting documentation for the pilots' execution will be available through the intranet of the eCAN website. The uploading of all the material for the pilot process on the intranet will be completed in a timely manner. The rest of the materials that will be created during the second year of the project will be made available through the e-oncologia platform, if they are addressed to HCPs and through the website if they are designed for patients and/or caregivers.

4. Outlook

In the ongoing effort to advance the use and adoption of telemedicine technologies, it is evident that while progress has been made under Task 8.3 in creating training materials for pilot partners and patients involved in the eCAN JA initiative, there remains a substantial need to extend these resources towards their trust and acceptance of primarily cancer patients (and caregivers), as well as of HCPs. To address this gap, WP8, in the framework of its Tasks 8.3 & 8.4 is strategically planning for the 2nd half of project's lifecycle the development of training programme and educational materials to enhance empowerment of patients and the healthcare professionals' skills and competencies in the adoption and use of telehealth/telemonitoring solutions.

To this end, WP8 involved partners are designing a series of related activities to identify the specific needs and knowledge gaps that exist in the broader healthcare community, as well as among cancer patients. These activities, as detailed in the forthcoming second version of this document, will be vital in ensuring that the eCAN initiative is accessible and beneficial to a wider audience.

The methodology for this endeavour is comprehensive and multifaceted. First, a gap analysis, through two rapid literature reviews, will be conducted, each targeting a distinct audience: on

the one hand healthcare professionals (HCPs) and on the other hand, patients and their families. These reviews will scour databases such as PubMed, Cochrane Library, Scopus, and Google Scholar etc. using keywords related to telemedicine, including e.g. "telemedicine", "telemonitoring", "telehealth", "e-health", "m-health", "online consultation", "virtual consultation", "remote specialist consultation", "direct-to-consumer consultation", "in-home monitoring" among others. Through this meticulous review process, the key gaps and needs in knowledge surrounding telemedicine will be identified.

To ensure the validity of these findings, they will be further corroborated and refined through interviews and/or group discussions with targeted stakeholders (policymakers, patient advocates, healthcare professionals) in most of the participating countries within the eCAN JA, leveraging the community network established in Task 8.1 (needs assessment). The validated needs will then form the blueprint for the creation of training and educational materials aimed at addressing the identified needs. Ultimately, the success of this endeavour will be tested through the piloting of these materials (Task 8.4), with input and collaboration from end users, such as healthcare professionals and patients.

5. Conclusions

D8.3 - Educational and training activities analytical report constitutes a complete guide of the learning materials developed and the training activities organized during the first year of the eCAN JA. All produced resources are made available in an online form, through the intranet of the JA website. Other resources, like mobile apps, will also be employed in the future, for the production and distribution of the training materials and activities of the second year of the project.

In essence, the WP8's approach for Tasks 8.3 & 8.4 represents a holistic and evidence-based strategy to bridge the knowledge gaps and existing needs towards the empowerment and acceptance of teleconsultation/telehealth solutions. It will emphasize the importance of leveraging existing research, engaging with stakeholders, and conducting practical training to ensure that the materials created are not only comprehensive but also effective in equipping healthcare professionals and the wider public (cancer patients, informal caregivers) with the skills and knowledge necessary to embrace telemedicine technologies.

This entire endeavor exemplifies the eCAN project's commitment to making telemedicine accessible, impactful, and sustainable in healthcare systems worldwide.

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